Appendix C
Correlated PM_{10} Concentrations and Winds

The following graphs illustrate the direct correlation between wind speeds[1] and PM_{10} concentrations at select monitoring sites within the Salton Sea Air Basin on October 4, 2015. Note a variety of instruments measure wind speed at different times during any given hour. Therefore, the following graphs reflect the hour of the wind measurement.

IMPERIAL COUNTY SELECT SITES
(FIGURES C-1 to C-4)

FIGURE C-1
BRAWLEY
PM_{10} CONCENTRATIONS & WIND SPEED CORRELATION

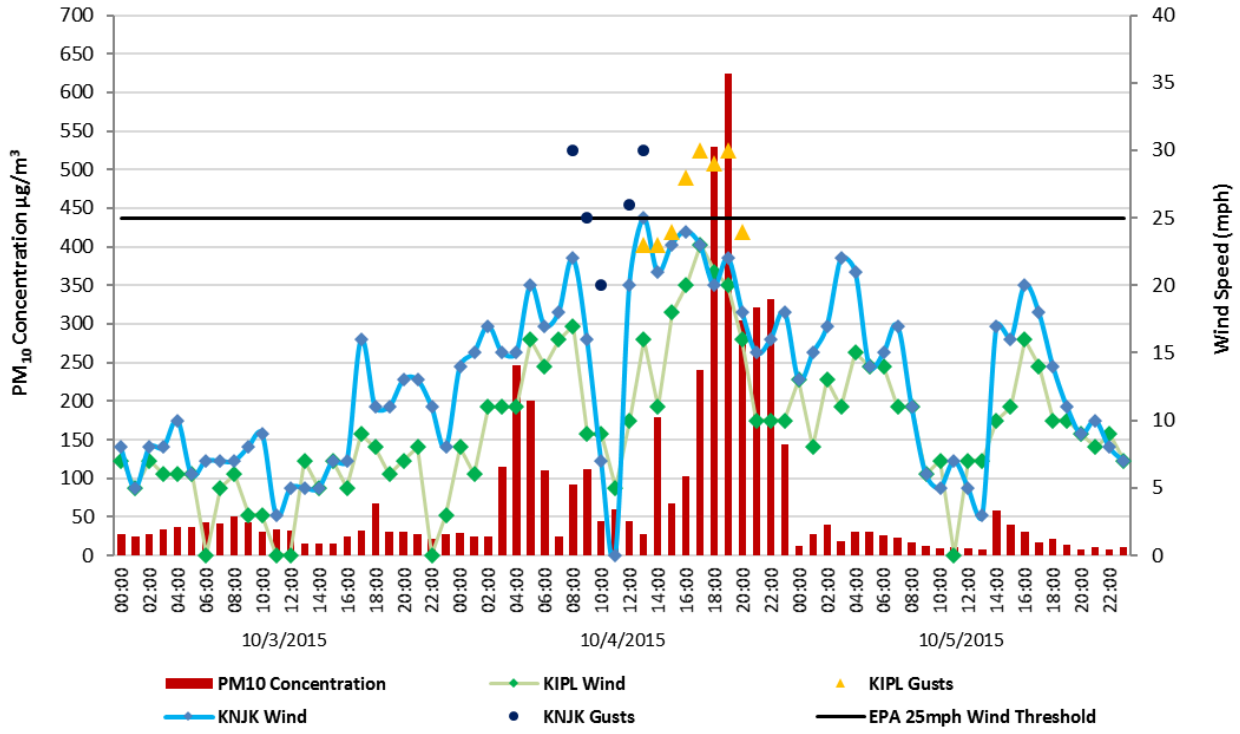


Fig C-1: KNJK and KIPL are the two closest meteorological instruments. PM10 concentrations at Brawley show a positive correlation with increased wind speeds. Brawley station does not record wind data. Air quality data from the EPA's AQS data bank

[1] National Weather Service; NOAA's Glossary – Wind Speed: The rate at which air is moving horizontally past a given point. It may be a 2-minute average speed (reported as wind speed) or an instantaneous speed (reported as a peak wind speed, wind gust, or squall); https://w1.weather.gov/glossary/index.php?letter=w

FIGURE C-2
EL CENTRO (9th St)
PM_{10} CONCENTRATIONS & WIND SPEED CORRELATION

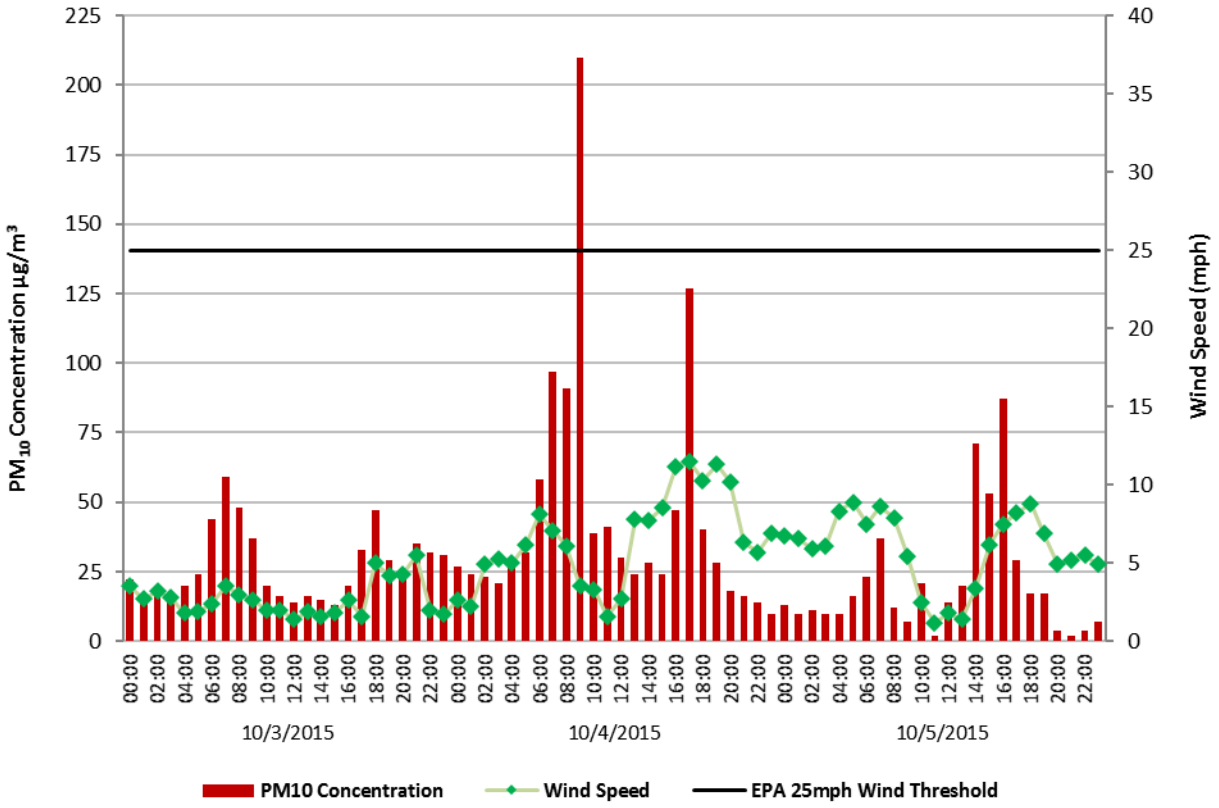


Fig C-2: El Centro was in the southern part of the county where winds were lower and did not record an exceedance. Air quality data from the EPA's AQS data bank

FIGURE C-3
NILAND PM_{10} CONCENTRATIONS & WIND SPEED CORRELATION

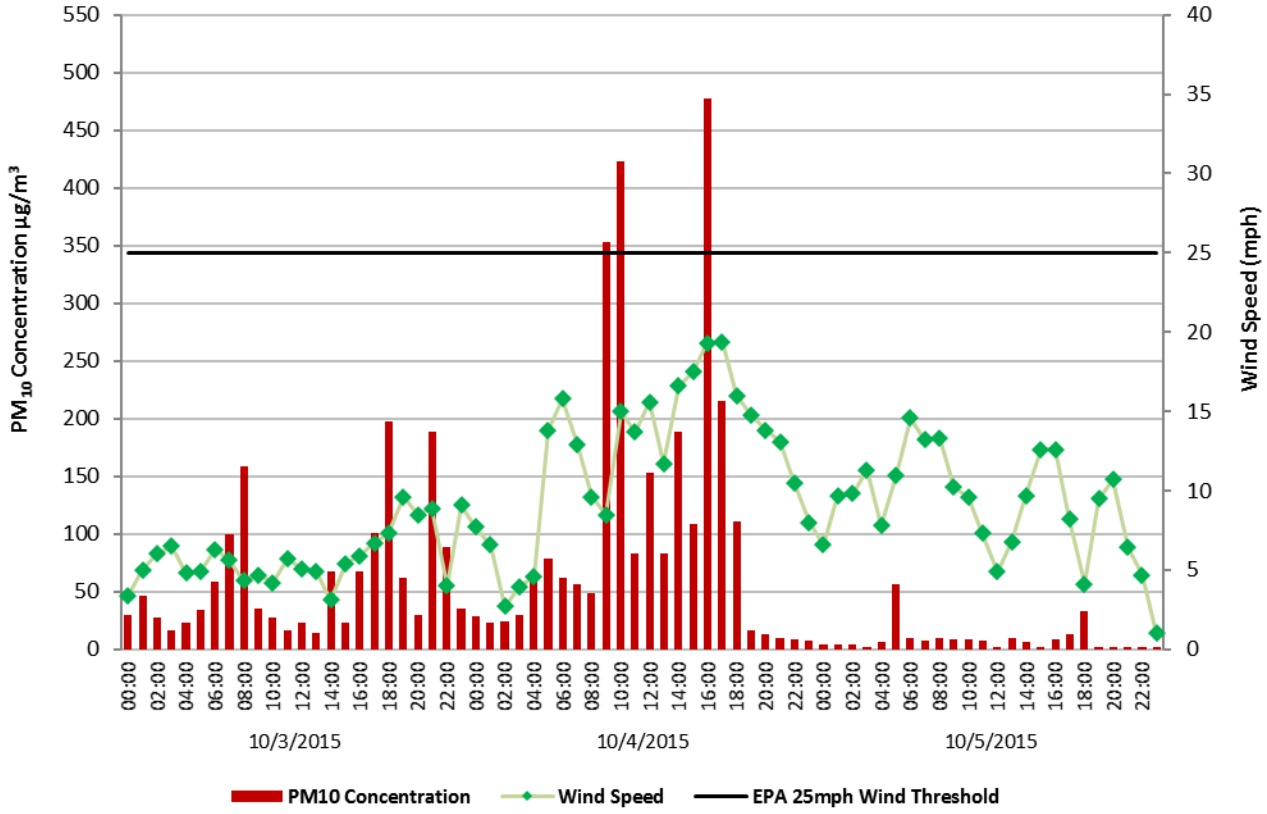


Fig C-3: Niland had moderately strong winds but much of the dust was deposited before reaching the station. Air quality data from the EPA's AQS data bank

FIGURE C-4
WESTMORLAND
PM_{10} CONCENTRATIONS & WIND SPEED CORRELATION

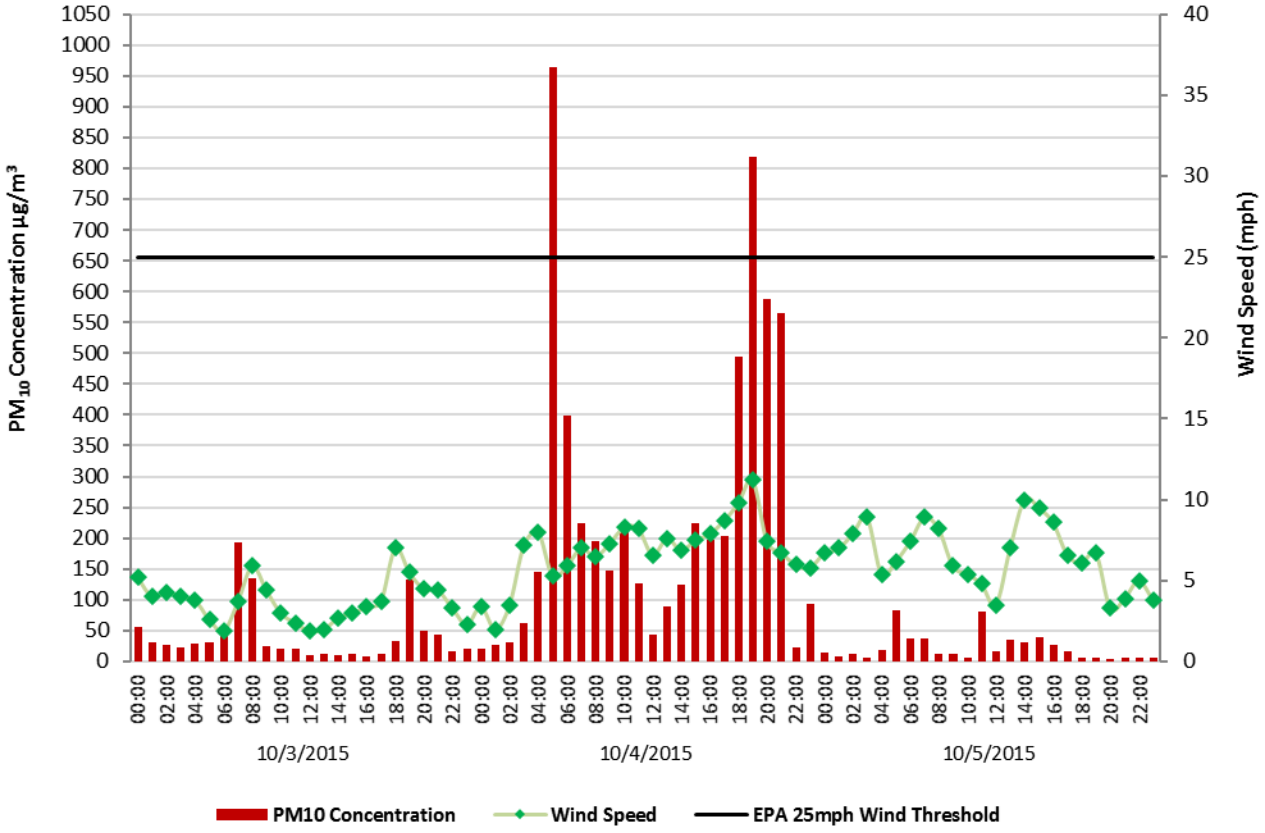


Fig C-4: Winds at Westmorland were considerably lower than at upstream areas, which allowed for transported dust to fall out over the monitor. Air quality data from the EPA's AQS data bank

EASTERN RIVERSIDE COUNTY MONITORING SITES

FIGURE C-5
TORRES-MARTINEZ DESERT CAHUILLA INDIAN RESERVATION
PM_{10} CONCENTRATIONS & WIND SPEED CORRELATION

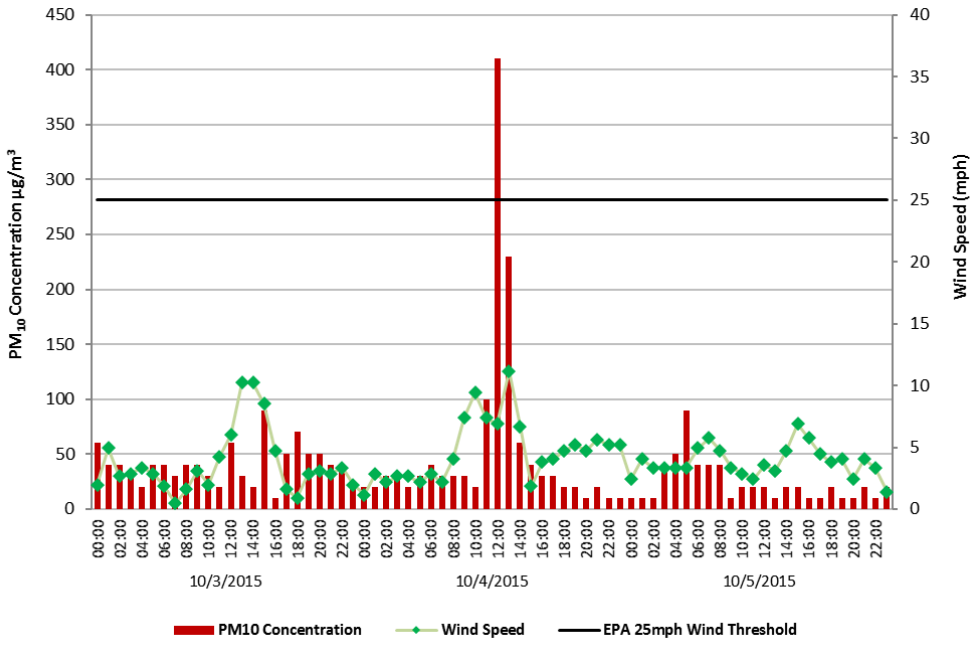


Fig C-5: Wind data from the EPA's AQS data bank

FIGURE C-6
INDIO (JACKSON ST)
PM_{10} CONCENTRATIONS & WIND SPEED CORRELATION

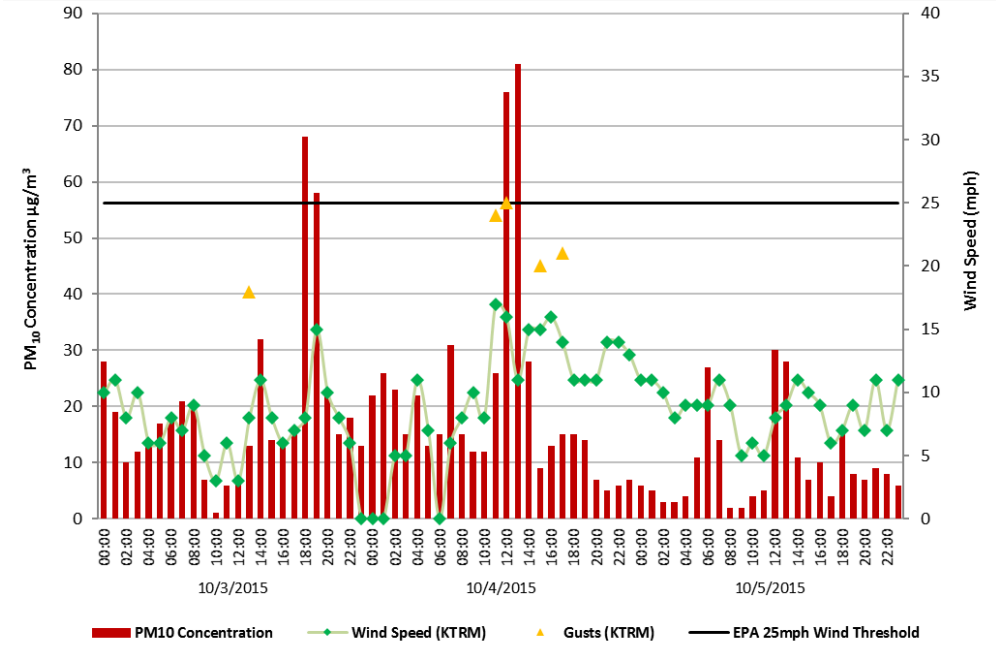


Fig C-6: Wind data from the NCEI's QCLCD system for Jacqueline Cochran Airport

FIGURE C-7
PALM SPRINGS FIRE STATION
PM_{10} CONCENTRATIONS & WIND SPEED CORRELATION

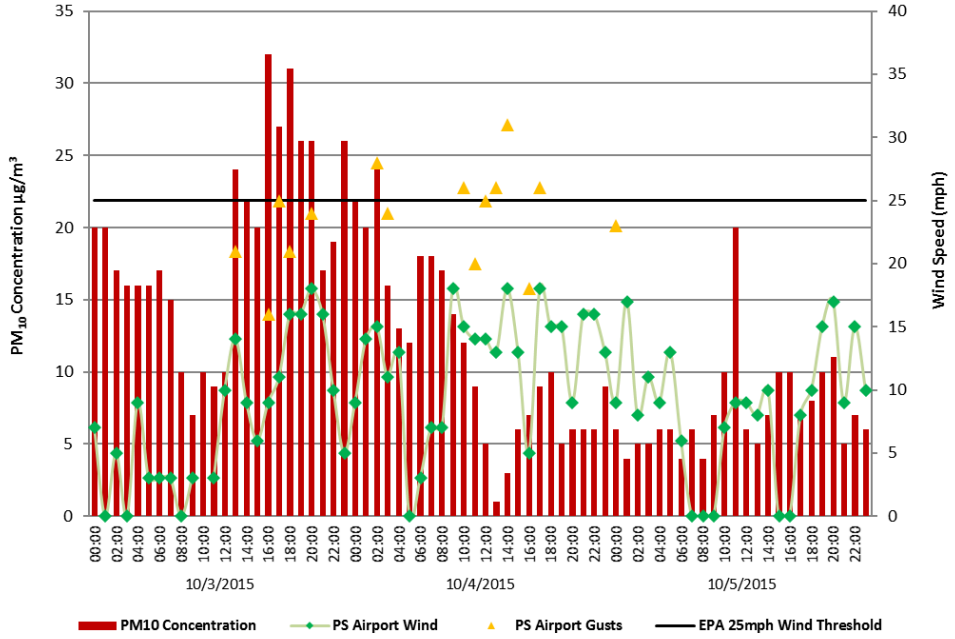
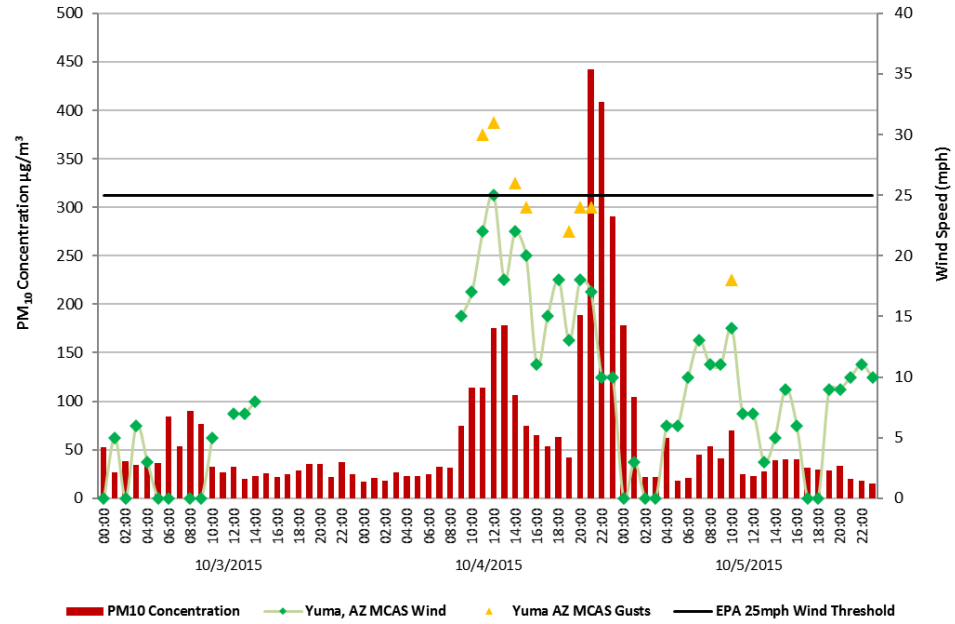


Fig C-7: Wind data from the NCEI's QCLCD system for Palm Springs Airport

SOUTHWESTERN ARIZONA MONITORING SITES

FIGURE C-8
YUMA, ARIZONA SUPERSITE
PM_{10} CONCENTRATIONS & WIND SPEED CORRELATION



Figs C-8: Yuma Supersite monitoring site is located in Yuma, Arizona. Wind data from the NCEI's QCLCD system